

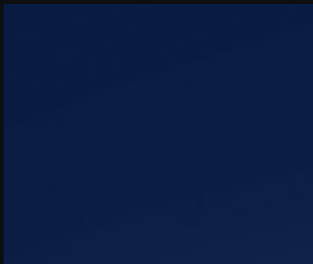


Bright Volition

Industrial Supply & Engineering Services

COMPANY PROFILE & CAPABILITIES

OFFERING TOP-NOTCH CUSTOMER CARE



01

WHO WE ARE?

- Company Overview
- Our Policy

02

WHAT BV OFFERS?

- Design & Engineering
- Construction & Installation
- System Commissioning & Start-Up
- Product Supply & Sourcing
- Operations Support & Troubleshooting

03

HOW BV SERVES ITS CUSTOMERS?

- Keep Confidentiality
- Tailored & Cost-effective Solution
- Collaborative Approach
- Commitment to Excellence

04

WHY BV IS THE RIGHT CHOICE?

- Customer Focus
- Innovation
- Sustainability and Social Responsibility



01

WHO WE ARE?

COMPANY OVERVIEW

Bright Volition was founded in 2022 as an engineering office specializing in Electrical, Instrumentation, and Mechanical services.

Founding Vision

- Lead in innovative, sustainable, and reliable engineering solutions.
- Empower clients to achieve lasting excellence.

Milestones

- 2023: Incorporated, launched first products & services.
- 2024: Broadened our services and upgraded our office to a registered company in the KRG.
- 2025: Diversified services; entered new sectors with advanced engineering solutions.

Future Outlook

- Commit to quality, sustainability, and responsibility.
- Drive innovation to stay ahead of trends.
- Expand globally while focusing on customer satisfaction.

OUR POLICY

Bright Volition is committed to delivering innovative, sustainable, and reliable engineering solutions, product supply, and construction services that meet customer requirements and exceed expectations.

To achieve this, we:

- Ensure compliance with ISO 9001 requirements, legal regulations, and contractual obligations.
- Strive for customer satisfaction by providing high-quality products, services, and solutions.
- Foster a culture of continuous improvement in all processes, systems, and performance.
- Empower our employees through training, teamwork, accountability, and by promoting well-being and work-life balance.
- Strengthen partnerships with clients and suppliers to create long-term value.

This policy provides the framework for setting and reviewing our quality objectives and is communicated to all employees and stakeholders to ensure understanding and effective implementation.

02

WHAT BV OFFERS

WHAT WE OFFER

Delivering specialized engineering services alongside reliable supply of electrical, mechanical, and instrumentation systems.

WHAT WE DO

Design & Engineering



Construction & Installation



System Commissioning & Start-Up



Product Supply & Sourcing



Operations Support & Troubleshooting



OUR **ENGINEERING SERVICES** INCLUDE

1 FEASIBILITY & STUDIES

- Technical and economic feasibility studies
- Conceptual design and project scoping
- Site surveys and data collection

2 ELECTRICAL ENGINEERING

- Detailed electrical design (LV, MV, HV systems)
- Power management systems
- Protection coordination studies
- Load flow, short circuit, and stability studies
- Harmonic analysis and power quality studies
- Power system analysis and simulation (ETAP, PSCAD, PSS/E, etc.)
- SCADA and automation integration

OUR **ENGINEERING SERVICES** INCLUDE

3 MECHANICAL ENGINEERING

- Cable tray and cable ladder installation
- HVAC Systems (Air Duct Systems, Fire dampers, value control dampers, VRF Systems, HVAC Accessories)
- Tank, Piping & Painting Inspection
- Pipe Installation & Welding
- NDT Non-Destructive Testing (PT, RT, UT, MT, PT)
- Rotating equipment installation
- Fire-Fighting Systems installation (Firefighting pumps, sprinkler systems, FM200 system, fire hydrants, valves)
- Lube Oil Filtration & Treatment
- Structural Steel installation

4 INSTRUMENTATION ENGINEERING

5 AUTOMATION & CONTROL



CONSTRUCTION

Electrical	Mechanical	Instrumentation
Grounding / earthing system installation	Cable tray and cable ladder installation	Field instrument installation (pressure, temperature, flow, level)
LV/MV power cable pulling	HVAC / VRF system installation	Control valve installation and calibration
LV/MV Distribution board installation	Air duct installation	Instrument cabling and tray/duct routing
UPS and battery bank installation	FM200 installation	Junction box and marshalling cabinet installation
LV/MV cable termination and connection	Pipe insulation	Instrument cable termination and loop checking
Fire alarm system installation	Equipment Installation	Hook-up installation for transmitters and sensors
Lighting and small power installation	Welding and Fabrication	Fire & gas detection system installation
Electric motor installation incl. control & power cable termination & connection		Analyzer system installation (gas, liquid analyzers)
Heat trace system installation		DCS/PLC panel installation and wiring
Solar power system installation		Pre-commissioning, calibration, and commissioning support

PRODUCT SUPPLY: **ELECTRICAL**

We provide a complete range of electrical components, distribution equipment, and power systems to ensure safe, reliable, and efficient operations from energy source to end-use.

● **POWER DISTRIBUTION & CONTROL**

- Switchgear & Panel Components: MCCB, MCB, RCD, Contactors, Overload Relays, Motor Starters (DOL, Star-Delta)
- Control Panels: LV Control Panels, PLC Panels, MCC Panels
- Control & Signaling Devices: Push Buttons, Selector Switches, Indicator Lamps, Timers, Phase Monitoring Relays

● **POWER GENERATION & CONDITIONING**

- Backup & Critical Power: Uninterruptible Power Supplies (UPS), Battery Banks, Generators
- Power Conditioning: Voltage Regulators, Rectifiers, Control Transformers
- Solar Energy Solutions: Inverters, Charge Controllers, Solar Panels, and Balance of System (BOS) Components

● **MOTORS & DRIVES**

- Motors: AC/DC Motors (LV & HV)
- Motor Control & Efficiency: Variable Speed Drives (VSD), Soft Starters

● **CABLING, WIRING & CONNECTIVITY**

- Cables: Power Cable (LV, MV, HV), Instrumentation & Control Cable, Data Cable
- Earthing / Grounding Systems: Earth Rods, Earth Cable, Earth Bars, Clamps, Bentonite Compound
- Cable Management: Cable Trays, Ladders, Conduits, and Junction Boxes

SIEMENS

ISC

Life Is On

Schneider
Electric

EAT•N

ABB

WEG

Pelsan

PRODUCT SUPPLY: **ELECTRICAL**

We provide a complete range of electrical components, distribution equipment, and power systems to ensure safe, reliable, and efficient operations from energy source to end-use.

● **SPECIALIZED SYSTEMS & EQUIPMENT**

- Heat Trace Systems: HT Panels, Heating Cables, Junction Boxes, Splice Kits, Controllers, and Monitoring RTDs
- Lighting Solutions: LED, HID (Metal Halide, High-Pressure Sodium), Fluorescent, Ex-Proof Fixtures, Emergency Lighting, and Floodlights
- Power Equipment: Distribution Transformers, Protective Relays, Circuit Breakers

● **TEST & MEASUREMENT**

- Electrical Instrumentation: Multimeters, Clamp Meters, Insulation Testers
- Power Monitoring: Power Quality Analyzers, Energy Meters, Data Loggers, Oscilloscopes



PRODUCT SUPPLY: INSTRUMENT

We supply a complete range of precision instruments for measurement, control, and safety, partnering with the world's leading manufacturers to ensure reliability and accuracy.

● MEASUREMENT INSTRUMENTATION

- Temperature: RTDs, Thermocouples, Temperature Transmitters & Gauges
- Pressure: Pressure Gauges, Transmitters, Transducers, Switches & Digital Indicators
- Flow: DP Flow Meters, Magnetic, Vortex, Ultrasonic, Turbine & Coriolis Mass Flow Meters
- Level: Level Transmitters (Radar, Ultrasonic), Switches, Sight Glasses & Indicators
- Gas & Process Analysis: Oxygen, Infrared (IR), Laser Gas Analyzers & pH/Conductivity Sensors

● VALVES & FINAL CONTROL ELEMENTS

- Control Valves & Actuators (Pneumatic, Electric)
- Manifold Valves (2, 3, and 5-Valve)
- Needle Valves, Check Valves, and Ball Valves

● SAFETY & ALARM SYSTEMS

- Fire & Gas Detection (F&G):
 - Fire Alarm Control Panels (FACP)
 - Detectors: Smoke, Heat, and Combustible Gas
 - Manual Call Points (MCP), Sounders, and Flashers
- Process Safety: Pressure Safety Valves (PSV), Switches, and Emergency Shutdown (ESD) Components

● CONTROL SYSTEM COMPONENTS & ACCESSORIES

- Process Controllers, Signal Conditioners, and PLC I/O Modules
- Instrumentation Cabling, Junction Boxes, and Intrinsic Safety Barriers

YOKOGAWA 

 EMERSON

 Endress+Hauser

Honeywell

 ASHCROFT®

KROHNE

 BONETTI®
Quality Valves & Level Gauges

PRODUCT SUPPLY: **MECHANICAL**

● **PIPING, VALVES & FITTINGS**

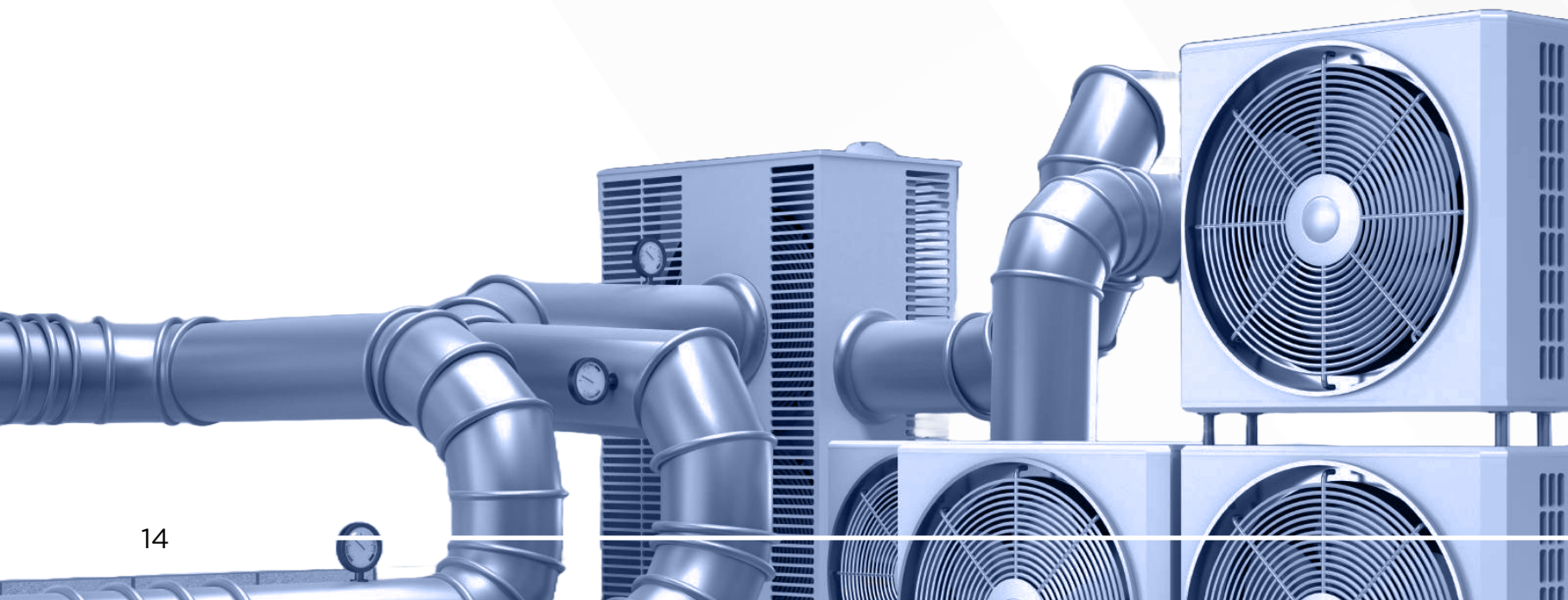
- Pipes, Tubes, and Related Fittings (Flanges, Elbows, Tees, Reducers, Couucers, Couplings, Unions, Adapters, Caps, Nipples)
- Industrial Valves (Gates, Globes, Checks, Ball, Butterflies) for All Applications
- Fluid Sealing Solutions: Gaskets, O-Rings, Mechanical Seals, and Industrial Sealants

● **POWER TRANSMISSION & MOTION CONTROL**

- Bearings: A Comprehensive Range of Ball, Roller, and Linear Bearings from Leading Brands
- Drive Components: V-Belts, Timing Belts, Flat Belts, Multi-Ribbed Belts, and Pulleys
- Chains, Sprockets, and Couplings

● **ROTATING EQUIPMENT & SUPPORT**

- Pumps, Compressors, Fans, Blowers, and Turbines
- Genuine Spare Parts for Rotating Equipment
- Lubrication Systems: Industrial Lubricants, Greases, and Automatic Lubrication Systems



PRODUCT SUPPLY: **MECHANICAL**

● **HVAC & CLIMATE CONTROL SYSTEMS**

- HVAC and VRF System Components and Spare Parts
- Commercial and Industrial Heating Systems: Radiators, Boilers, and Components

● **FABRICATION, CONSTRUCTION & STRUCTURAL**

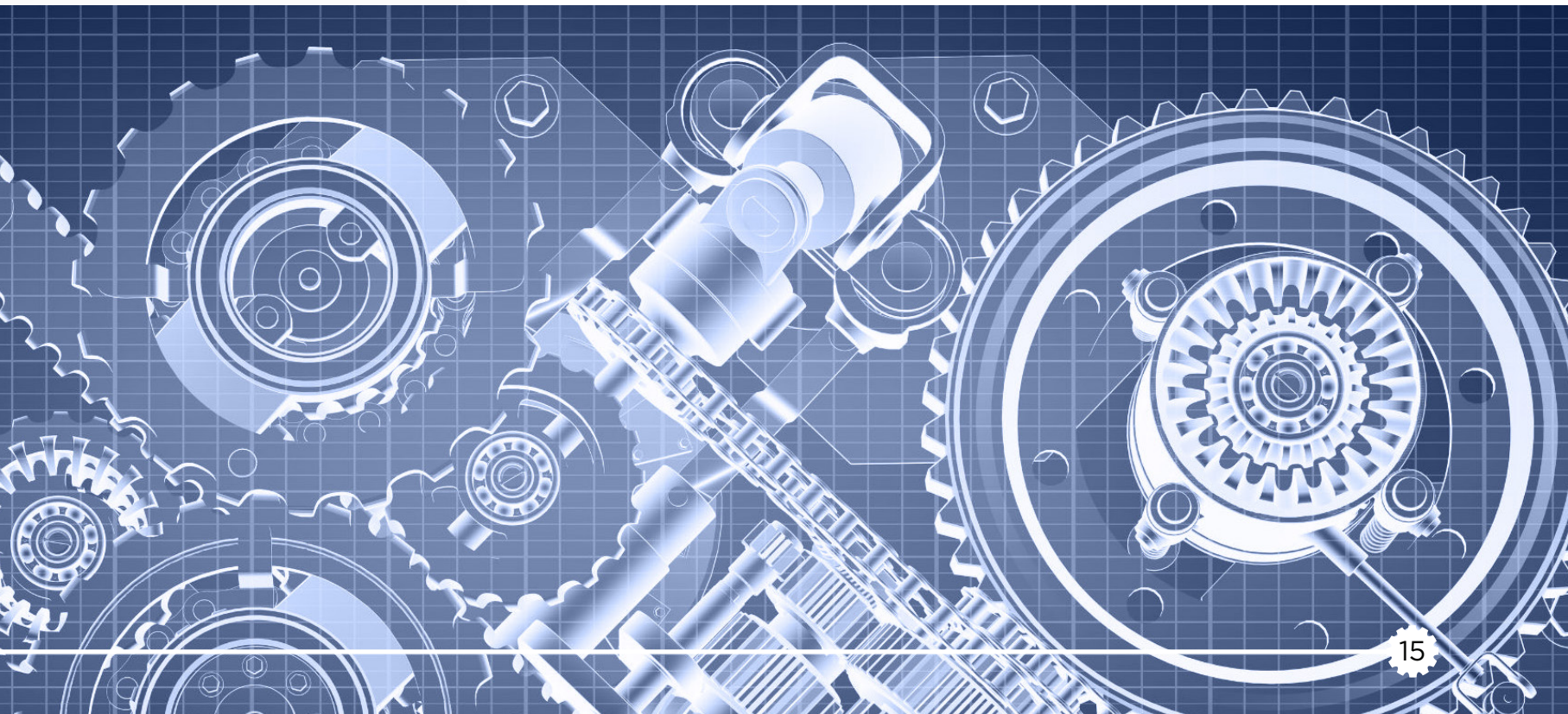
- Welding Consumables (Electrodes, Wires, Gases) and Equipment
- Metal Cutting and Machining Supplies
- Structural Steel Components: Channels, I-Beams, Angles, and Plates

● **FASTENING & ASSEMBLY**

- Comprehensive Fastening Solutions: Bolts, Screws, Nuts, Washers, and Studs
- General Construction Fasteners: Nails, Anchors, and Rivets

● **FILTRATION & FLUID CONDITIONING**

- Filtration Systems: Hydraulic Filters, Air Filters, Oil Filters, and Strainers
- Material Handling: Conveyor Belts, Idlers, and Components



ENGINEERING: **ELECTRICAL**

2025 MODEL PROJECT

RELIABILITY AND IMPACT STUDY FOR 50 MW PV POWER PLANT

- CLIENT: **SINOMA DCC LINE 2 - DELTA CEMENT COMPANY**
- TYPE: **50MW (DC) SOLAR POWER PLANT GRID CONNECTION STUDY**
- SCOPE: **POWER SYSTEM ANALYSIS, REGULATORY TECHNICAL SUPPORT**
- LOCATION: **BAZVAN, SULAYMANIYAH, IRAQ**
- IN COORDINATION WITH: **MINISTRY OF ELECTRICITY**
- Status: **JUNE - SEPTEMBER/2025**

■ **SCOPE OF ENGINEERING SERVICES**

- Power System Impact Study using PSS®E, PSCAD and ETAP
- Protection and Control Coordination Review
- Energy Management System (EMS) Evaluation and Operation Procedure Arrangements
- Recommendation for the Vendor and the Client



ENGINEERING: ELECTRICAL

■ TECHNICAL TOOLS & EXPERTISE APPLIED

■ 1. Tools & Software Used

Tool / Software	Function
PSS®E	Grid modeling, power flow, fault studies
ETAP	Protection Coordination Study
Excel/Docs	Reports and Ministry submittals
PPC	Power Project Control

■ 2. Team Expertise in Regulatory & Technical Execution

Our team brings specialized knowledge in delivering engineering studies in compliance with Iraqi Grid Code and Ministry of Electricity (MoE) requirements. Key capabilities include:

- Conducting detailed power system impact studies using PSS®E, including:
 - *Harmonic distortion analysis*
 - *Reactive power evaluation and mitigation of back-feed risks*
 - *System modeling, simulation, and scenario-based technical recommendations*
- Evaluating the performance and settings of the Energy Management System (EMS) to ensure efficient control of power flow between the PV system and the grid.
- Performing Protection Coordination Review to assess the PV system's safety at the grid connection point.
- Developing and delivering technical reports aligned with ministry expectations and local regulatory standards.

TROUBLESHOOTING

Advanced Technical Troubleshooting & Root Cause Analysis

We employ a systematic, data-driven approach to rapidly identify the root cause of complex issues in electrical, mechanical, and instrumentation systems. Our methodology minimizes downtime and prevents recurrence, ensuring your operational integrity.

Problem Definition & Data Collection

We start by thoroughly reviewing system documentation, including P&ID (Piping & Instrumentation Diagrams) and Electrical Schematic Diagrams.

Structured Analysis & Root Cause Identification

FMEA (Failure Mode and Effects Analysis): Proactively identifying potential points of failure.

FTA (Fault Tree Analysis): A top-down, deductive method to analyze system failures.

Cause-and-Effect (Ishikawa) Diagrams:

A collaborative approach to explore all potential causes of a problem.

Solution Implementation & Validation

We develop and execute a corrective action plan, verifying that the resolution is effective and restores system reliability and performance.



03

**HOW BV SERVES
ITS CUSTOMERS?**

| HOW WE **WORK?**

1 CONFIDENTIALITY FIRST

We prioritize the confidentiality of both our customers and suppliers, ensuring that all sensitive information remains secure and protected.

2 STREAMLINED SUPPLY CHAIN MANAGEMENT

Our efficient supply chain management practices guarantee the timely delivery of products and services, minimizing delays and optimizing performance.

3 UNCOMPROMISING QUALITY AND RELIABILITY

We partner with reputable suppliers to provide top-notch products and services. Our focus on quality and reliability ensures that every solution meets the highest standards.

4 TAILORED & COST EFFECTIVE SOLUTION.

5 COLLABORATIVE APPROACH

Working closely with our client to understand their needs and provide the best possible solutions.

6 COMMITMENT TO EXCELLENCE

We are committed to delivering excellence in everything we do.

04

WHY BV IS THE RIGHT CHOICE

WHY WE ARE THE **RIGHT CHOICE?**

CUSTOMER FOCUS

1. We place a high value on comprehending the specific requirements and obstacles of each client.
2. Prioritizing excellent customer service and building strong, long-term relationships with clients.

INNOVATION

We stay ahead of the curve with the latest technologies and industry trends.

Our investment in Research & Development enables us to offer cutting-edge solutions that enhance efficiency and productivity.

SUSTAINABILITY AND SOCIAL RESPONSIBILITY

both are incorporated with our company's practices and projects. This could involve:

- Offering environmentally friendly engineering solutions.
 - Health and Safety: Prioritize the health and safety of workers, clients, and the community by adhering to rigorous safety standards.
 - Energy and Atmosphere: Prioritize energy-efficient designs, equipment, and systems to minimize energy consumption and greenhouse gas emissions and mitigate climate change.
- Implement Sustainable Practices
- Engage in CSR activities that support local communities or environmental initiatives

CONTACT US

Bright Volition – Your Trusted Partner in Engineering Solutions

Ready to Collaborate? Reach out with your inquiries or RFQs – we're here to deliver precision, quality, and trust.



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